



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,737	07/01/2003	Ko Masuda	AB-1324 US	5640
7590 10/27/2005			EXAMINER	
MacPherson Kwok Chen & Heid LLP			EDELL, JOSEPH F	
Suite 226			ART UNIT	
1762 Technology Drive			PAPER NUMBER	
San Jose, CA 95110			3636	

DATE MAILED: 10/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/613,737	Applicant(s) MASUDA ET AL.	
	Examiner Joseph F. Edell	Art Unit 3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-16 is/are rejected.
- 7) ☒ Claim(s) 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12 October 2005 has been entered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the split piece of the nut member and the movable member must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

Art Unit: 3636

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 1 is objected to because of the following informalities: "and a nut member" (line 17) should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation "said pyrotechnical actuator" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/45985 A1 to Specht et al. in view of U.S. Patent No. 6,83,540 B2 to Yamaguchi et al.

Specht et al. disclose a vehicle occupant restraint system that is basically that same as that recited in claims 12-16 except that the power actuator lacks a gas generator, piston rod, and nut member, as recited in the claims. Figures 1 and 8 of Specht et al. teach a vehicle occupant restraint system having a restraining member 8-11 (see Fig. 1 and see page 1, lines 10-11) supported by a seat frame so as to be movable between a retracted position leaving a seat bottom in an undisturbed state and a deployed position (see page 3, lines 27-30 and page 7, line 26), a crash sensor 2, a crash prediction sensor 1, an electrically motorized power actuator 4-7 with an output shaft and transmitting mechanism (see page 3, lines 30-32) supported on the seat frame, and a control unit 3 adapted to actuate the power actuator so as to raise the restraining member to a partly deployed position upon prediction of a vehicle crash according to data from the prediction sensor wherein the control unit returns the restraining member from the partly deployed position back to the retracted position upon failure to detect an actual crash by the crash sensor and a fully deployed the restraining

Art Unit: 3636

member from the partly deployed position upon detection of an actual crash by the crash sensor. Yamaguchi et al. show a vehicle occupant restraint system wherein the system has a restraining member (see Fig. 1), a crash sensor and a control unit (see column 6, lines 40-43), a power actuator (see Fig. 9) with a cylinder 72 fixedly supported by the seat frame and including an open end and a closed end, a gas generator 73 received in the closed end of the cylinder that extends in a fore-and-aft direction along a side part of the seat frame, a piston received in the cylinder, a piston rod 23 with one end engaging the piston and another end projecting out of the open end of the cylinder, the piston rod has a threaded section 80 and supported so as to be rotatable around an axial line, a nut member 24 threadably engaging the threaded section of the piston rod and supported by the seat frame against a reaction force of the piston rod axially moving into the cylinder and abutting the open end of the cylinder, a split piece of the nut member normally urged by a spring member 79 against a slanted surface of a guide member 76 abutting the open end of the cylinder such that the split piece is normally placed in a threadable engagement with the threaded section of the piston rod when the piston rod is turned in a normal direction to move the restraining member toward the deployed position and allows the piston rod to move freely in the axial direction when the piston rod is actuated, and a laterally extending member 70 pivotally supported by a pair of arms 11,41. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the vehicle occupant restraint system of Specht et al. such that the power actuator includes a cylinder fixedly supported by the seat frame and having an open end and a closed

Art Unit: 3636

end, a gas generator received in the closed end of the cylinder, a piston received in the cylinder, a piston rod with one end engaging the piston and another end projecting out of the open end of the cylinder, the piston rod has a threaded section and supported so as to be rotatable around an axial line, a nut member threadably engaging the threaded section of the piston rod and supported by the seat frame against a reaction force of the piston rod axially moving into the cylinder and abutting the open end of the cylinder, a split piece of the nut member normally urged by a spring member against a slanted surface of a guide member which is supported by the seat frame against a reaction force of the piston rod axially moving into the cylinder in such a manner that the split piece is normally placed in a threadable engagement with the threaded section of the piston rod when the piston rod is turned in a normal direction to move the restraining member toward the deployed position and allows the piston rod to move freely in the axial direction when the piston rod is actuated in a direction to deploy the restraining member, a laterally extending member located under the seat bottom at a longitudinally middle point of the seat bottom, and a pair of arms pivotally supporting the laterally extending member wherein the electric motor is adapted to turn the piston rod around the axial line, the nut member abut the open end of the cylinder, and the guide member abuts the open end of the cylinder, such as the vehicle occupant restraint system, disclosed in Yamaguchi et al. One would have been motivated to make such a modification in view of the suggestion in Yamaguchi et al. that the restraining member and power actuator provide an energy absorbing structure preventing submarining of the occupant upon an occurrence of a collision.

Allowable Subject Matter

8. Claims 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Response to Arguments

9. Applicant's arguments with respect to claims 12-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph F. Edell whose telephone number is (571) 272-6858. The examiner can normally be reached on Mon.-Fri. 8:30am-5:00pm.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should


Art Unit: 3636

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JE

October 25, 2005



Peter M. Cuomo
Supervisory Patent Examiner
Technology Center 3600